

CLAIMS

What is claimed is:

1. A method of activating a mechanism, wherein a force required to activate the mechanism varies between a minimum force and a maximum force in relation to the time since the mechanism was last activated, the method comprising:

applying an electrical current to a solenoid having an armature extending therefrom, wherein the armature is movable between a first position and a second position and wherein the electrical current of the solenoid causes the armature to exert an armature force; and

delaying, after applying the electrical current to the armature, the movement of the armature from the first position to the second position until such time as the armature force is greater than the maximum force necessary to activate the mechanism.

2. The method as recited in claim 1, wherein delaying comprises:

delaying, after applying the electrical current to the armature, the movement of the armature from the first position to the second position until such time as the armature force exhibits a preselected armature force that is greater than or equal to the maximum force necessary to activate the mechanism.

3. The method as recited in claim 1, further comprising:

contacting the armature to the mechanism after such time as the armature force is greater than the maximum force necessary to activate the mechanism.

4. The method as recited in claim 1, further comprising separating the end of the armature from the mechanism, prior to applying the electrical current.

5. The method as recited in claim 1, wherein delaying comprises delaying the armature with a spring biasing the armature against movement from said first position to said second position.

6. The method as recited in claim 1, wherein delaying comprises exerting a force via

a spring contacting a shoulder of the armature.

7. The method as recited in claim 1 wherein delaying comprises delaying the armature with a body having a mass biasing the armature against movement from said first position to said second position.

8. A solenoid assembly, for use in activating a mechanism, wherein a force required to activate said mechanism varies between a minimum force and a maximum force in relation to the time since said mechanism was last activated, said solenoid assembly comprising:

a solenoid having an armature extending therefrom, wherein said armature moves between a first position and a second position, wherein when an electrical current is applied to said solenoid, said solenoid causes said armature to exert an armature force; and

a delay member for delaying the movement of said armature, wherein after the initiation of an electrical current to said armature said delay member delays the movement of said armature from said first position to said second position until such time as said armature exhibits an armature force greater than said maximum force necessary to activate said mechanism.

9. The solenoid assembly of claim 8, wherein said delay member comprises a spring positioned to bias said armature against movement from said first position to said second position.

10. The solenoid assembly of claim 9, wherein said armature comprises a shoulder and wherein said spring is positioned to exert force against said shoulder.

11. The solenoid assembly of claim 10, wherein the end of said armature is rod shaped, wherein said shoulder is formed on the outer periphery of said armature and said spring is positioned coaxially with said armature.

12. The solenoid assembly of claim 9 further comprising a spacer positioned between said solenoid and a mechanism requiring mechanical movement, so that when said armature

is in said first position the end of said armature is spaced from said mechanism.

13. The solenoid assembly of claim 9, further comprising an extension member attached to said armature.

14. The solenoid assembly of claim 13, wherein said extension member comprises a shoulder, wherein said spring exerts force against said shoulder.

15. The solenoid assembly of claim 9, wherein said delay member comprises a body having a mass, said body being attached to said armature for movement with said armature, wherein said mass is sufficient to delay said armature from moving between said first position and said second position.

16. A solenoid assembly, for use in activating a mechanism wherein a force required to activate said mechanism varies in relation to the time since said mechanism was last activated, said solenoid assembly comprising:

a solenoid having an armature extending therethrough, wherein said armature moves between a first position and an second position wherein when an electrical current is applied to said solenoid, said solenoid causes said armature to exert an armature force; and

a delay member for delaying the movement of said armature, wherein after the initiation of an electrical current to said armature said delay member delays the movement of said armature from said first position to said second position until said armature exhibits a preselected armature force, necessary to activate said mechanism.

17. The solenoid assembly of claim 16, wherein said armature comprises a shoulder and wherein said spring is positioned to exert force against said shoulder.

18. The solenoid assembly of claim 17, wherein the end of said armature is rod shaped, wherein said shoulder is formed on the outer periphery of said armature and said spring is positioned coaxially with said armature.

19. The solenoid assembly of claim 16, wherein said solenoid assembly is adapted for use with a mechanism requiring mechanical movement, said solenoid assembly further comprising a spacer, positioned between said solenoid and said mechanism, so that when said armature is in said first position the end of said armature is spaced from said mechanism.

20. The solenoid assembly of claim 16, further comprising an extension member attached to said armature.

21. The solenoid assembly of claim 20, wherein said extension member comprises a shoulder, wherein said spring exerts force against said shoulder.

22. The solenoid assembly of claim 16, wherein said delay member comprises a body having a mass, said body being attached to said armature for movement with said armature, wherein said mass is sufficient to delay said armature from moving between said first position and said second position.

23. A solenoid assembly for use in activating a mechanism, wherein a force required to activate said mechanism varies between a minimum force and a maximum force in relation to the time since said mechanism was last activated, said solenoid assembly comprising:

a solenoid having an armature extending therefrom, wherein said armature moves between a first position and a second position, wherein when an electrical current is applied to said solenoid said solenoid causes said armature to exert an armature force:

a spring biasing said armature against movement from said first position to said second position until such time as said armature exhibits an armature force greater than said maximum force necessary to activate said mechanism; and

a spacer, positioned between said solenoid and said mechanism, so that when said armature is in said first position the end of said armature is spaced from said mechanism.

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